ATTACHMENT 7 – WATER SUPPLY BENEFITS (Att7_IG1_GBA_WSBen_1of1)

Project List:

1.) City of Stockton - High Efficiency Toilet Direct Installation Phase II – Program Expansion to Residential Customers (HET Residential Program)

2.) Stockton East Water District – 35 Acre Recharge Pond and Conjunctive Use Project (35 Acre Recharge Project)

The information required by DWR for the introduction and work plan tasks of this Implementation Grant proposal package are organized into two standalone sections for the projects listed above.

City of Stockton - High Efficiency Toilet Direct Installation Program Expansion to Residential Customers (Phase II HET Program)

Annual Project Costs

The Annual Project Cost is presented as Table 11a. Note that the Initial Costs located in Column (a) correspond to the detail provided in Table 7a of Attachment 4 and the implementation timeline in Attachment 5. A discount factor of 6% has been prescribed by DWR.

Quantitative Benefits

The Water Supply Benefits Analysis presented hereto is described as the calculated benefit of the annual water supply savings in 2009 dollars. The Without Project Scenario contemplated projects no additional incremental water savings. The monetary value of water is assumed to be the annual cost of treated drinking water to be produced by the Delta Water Supply Project which is currently under construction and is expected to be online in 2012. Annual costs include debt service and Operations and Maintenance Costs (O&M). For the purposes of quantifying the project annual water savings per HET unit, the GBA and the City of Stockton have adopted the water savings calculation methodology the California Urban Water Conservation Council. The quantitative economics analysis assumes the following:

A. Average Annual Water Savings per Residential HET Unit = 0.056 acre-feet per year per HET;
B. 400 Residential HET Units Installed per Proposal;
    - 2/3 installed in 2012;
    - 1/3 installed in 2013;
C. Average Annual Water Savings per CII HET Unit = 0.0941 acre-feet per year per HET;
D. 417 Commercial HET Units Installed;
    - 1/3 installed in 2010;
    - 2/3 installed in 2011;
E. 15-year Life-cycle for HET Units
F. Value of Treated drinking water is $732 per acre foot (Source City of Stockton Delta Water Supply Project Analysis)
    - Annual Average Debt Service Amount = $15,379,418
    - Annual Projected O&M Cost = $4,296,854

- 80% Yield for the 30 MGD Water Treatment Plant = 26,880 acre-feet per year

G. The Annual projected water savings for the HET Residential Program is approximately 22.4 acre-feet per year and 39.2 acre-feet per year for the CII HET Program.

The Total Present Value based of Discounted Water Supply Benefits is presented in Table 12a. Table 15a summarizes the Total Present Value of Discounted Benefits.

Qualitative Benefits

The City of Stockton continues to recognize that aggressive measures for conservation are integral to maintaining a sustainable water supply for the community in terms of service area and also in the context of the Eastern San Joaquin Region represented by the GBA.

In 2006, the City of Stockton became a signatory to the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding (MOU). By signing the MOU, members agree to implement identified Best Management Practices (BMPs) to conserve water in urban areas. In addition, on February 19, 2008, the City Council approved the City of Stockton Water Conservation Program and Project Management Plan (Plan) which identifies a long term water efficiency program designed to address demand management for existing and future water supplies through voluntary participation and customer incentives. The Plan identifies a target goal of annual water savings equal to 3.4 percent of the 2006 water demand; a water savings of approximately 1,200 acre-feet or more per year. The Phase I CII HET Program was justified to the Stockton City Council based on this Plan.

Additionally, in order to comply with the goal of 20% reduction in per capita water use by 2020 legislated in 2009 by SBx7-7, the City of Stockton has preliminarily calculated the 2015 interim and 2020 mandated per capita water use targets based on methods 1 thru 3 (see attached Technical Memorandum Att3_IG1_GBA_WorkPlan_2of6). The proposed Phase II HET Residential Program supports the City of Stockton's continued commitment to aggressively meet the goals of SBx7-7.

Stockton East Water District – 35 Acre Recharge Pond Demonstration Project (35 Acre Recharge Project)

Annual Project Costs

The Annual Project Cost is presented as Table 11b. Note that the Initial Costs located in Column (a) correspond to the detail provided in Table 7b of Attachment 4 and the implementation timeline in Attachment 5. A discount factor of 6% has been prescribed by DWR.

Assumptions for the operations and maintenance (O&M) costs for the 35-acre groundwater recharge facility were based on current O&M costs for O&M at the existing recharge facilities on site at the SEWD Treatment Plant. SEWD estimates annual administration costs of $2,500 and operations cost of $8,140 based on the need to deep rip each recharge cell once every two years at a cost of $16,280 (see Engineer's Estimate for 20 acres of deep ripping).

Quantitative Benefits

The Water Supply Benefits Analysis presented hereto is described as the calculated benefit of the annual water supply savings in 2009 dollars. The Without Project Scenario contemplated assumes no additional incremental pumping lift benefit or augmentation of municipal supplies to be recovered in dry years. The Water Supply benefit is characterized below as the Opportunity Cost of the 35-acre recharge site, the annual incremental pumping lift benefit of the net recharge volume spread over the SEWD service area, and the value of municipal water supplies delivered in dry years by existing recovery wells.

The opportunity cost of utilizing the 35-acres of the SEWD Treatment Plant Property is estimated to be an estimated unrealized benefit of $3,000 per acre. This amount is a conservative valuation of the land in 2009 dollars.

For the purposes of the economics analysis, it is assumed that recharge water on average, due to variations in precipitation, would be available in 7 out of every 10 years. The cells would operate for approximately 335 days out of the year leaving a 30-day window for annual maintenance. The assumed average recharge rate is 0.40 feet per day over the life of the project which is consistent with long-term recharge rates at the current SEWD Treatment Plan t recharge areas. The annual recharge capacity is approximately 2,680 acre-feet per year. Over the 50-year life of the project, a total of 93,800 acre-feet will be recharged.

Recovery of the stored surface water will be accomplished by the utilization of two existing on-site wells. The first well has an approximate capacity of 800 gallons per minute (approximately 3.5 acre feet per day) and 1,000 gallons per minute (approximately 4.4 acre feet per day). These wells are currently plumbed into the existing raw water reservoir of the SEWD Dr. Joe Waidhofer drinking water treatment plant and will augment treated drinking water supplies delivered to SEWD urban customers in dry years. Recovery of stored water is expected to take place in 3 out of every 10 years when surface through existing water contracts are reduced. The operational scenario assumes 150-days of peak demand during the summer months of May, June, July, and August, and September. The remaining banked recharge water is available for users throughout the basin by groundwater pumpers. The augmented dry year municipal

supply is approximately 1193 acre-feet in dry years with annual average of 358 acre-feet per year totaling 17,889 acre-feet over the 50-year life of the project.

The Water Supply Benefits analysis assumes the following:

A. Opportunity Cost = $105,000 in 2009 dollars.
    - 35 acres at $3,000 per acre.
B. A average specified yield of 7.3 percent in SEWD area;
C. 116,000 acre SEWD service area size;
D. Average groundwater pump efficiency in SEWD of 70 percent ;
E. Average SEWD-wide pumping of 140,000 acre-feet per year;
F. Power Cost in 2009 Dollars = $0.15/KWh;
G. Average 1.46 KW-hour/acre-foot/foot of lift in SEWD area;
H. 2009 value of Municipal Dry year Supply is $200 per acre-foot (based on existing municipal raw water supply dry-year contracts with local irrigation districts including Woodbridge Irrigation District (WID) and the City of Lodi, WID and the City of Stockton, and SEWD and the South San Joaquin Irrigation District);
I. Assumed Annual Escalator of 2% on Municipal Water Supply benefit unit costs (Raw water contracts mentioned above have annual escalators tied to various indices and are considered real costs)
J. Average Annual Recharge w/ Project = 2,680 acre-feet per year x 0.7 = 1,876 af/yr;
K. Average Annual Municipal Extraction = 1192.5 acre-feet per year x 0.3 = 358 af/yr;

Annual Groundwater Lift Benefit (ft) = H./B./A. = 0.22 ft/yr

SEWD-wide Annual Pumping Cost Benefit (2009 $) = F. x D. x 0.22 ft/yr x E. = $6,745 per year

Annual Municipal Supply Cost Benefit (2009 $) = I. x G. = $71,600 per year

Table 11a- Annual Cost of Project

(All costs should be in 2009 Dollars)

Project Title: City of Stockton - High Efficiency Toilet Direct Installation Phase II – Program Expansion to Residential Customers (HET Residential Program)

	Initial Costs	Operations and Maintenance Costs [1]						Discounting Calculations	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
YEAR	Grand Total Cost From Table 7 (row (i), column(d))	Admin	Operation	Maintenance	Replacement	Other	Total Costs (a) +…+ (f)	Discount Factor	Discounted Costs(g) x (h)
2009							$0	1.000	$0
2010	$50,000						$50,000	0.943	$47,150
2011	$144,969						$144,969	0.890	$129,023
2012	$148,605	$0	$0	$0			$148,605	0.840	$124,829
2013	$74,303	$0	$0	$0			$74,303	0.792	$58,881
2014		$0	$0	$0			$0	0.748	
2015		$0	$0	$0			$0	0.705	
2016		$0	$0	$0			$0	0.665	
2017		$0	$0	$0			$0	0.628	
2018		$0	$0	$0			$0	0.592	
2019		$0	$0	$0			$0	0.559	
2020		$0	$0	$0			$0	0.527	
2021		$0	$0	$0			$0	0.497	
2022		$0	$0	$0			$0	0.469	
Project Life	$417,877							…	
								Total Present Value of Discounted Costs (Sum of Column (i))	$359,883
								Transfer to Table 20, column (c), Exhibit F: Proposal Costs and Benefits Summaries	

Comments:

Table 11b- Annual Cost of Project

(All costs should be in 2009 Dollars)

Project Title: Stockton East Water District 35 Acre Recharge Pond and Conjunctive Use Project

	Initial Costs	Operations and Maintenance Costs [1]						Discounting Calculations	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
YEAR	Grand Total Cost From Table 7 (row (i), column(d))	Admin	Operation	Maintenance	Replacement	Other	Total Costs (a) +...+ (f)	Discount Factor	Discounted Costs(g) x (h)
2009							$0	1.000	$0
2010							$0	0.943	$0
2011	$1,376,502						$1,376,502	0.890	$1,225,082
2012		$2,500	$8,140	$8,140			$18,780	0.840	$15,768
2013		$2,500	$8,140	$8,140			$18,780	0.792	$14,876
2014		$2,500	$8,140	$8,140			$18,780	0.747	$14,034
2015		$2,500	$8,140	$8,140			$18,780	0.705	$13,239
2016		$2,500	$8,140	$8,140			$18,780	0.665	$12,490
2017		$2,500	$8,140	$8,140			$18,780	0.627	$11,783
2018		$2,500	$8,140	$8,140			$18,780	0.592	$11,116
2019		$2,500	$8,140	$8,140			$18,780	0.558	$10,487
2020		$2,500	$8,140	$8,140			$18,780	0.527	$9,893
2021		$2,500	$8,140	$8,140			$18,780	0.497	$9,333
2022		$2,500	$8,140	$8,140			$18,780	0.469	$8,805
2023		$2,500	$8,140	$8,140			$18,780	0.442	$8,306
2024		$2,500	$8,140	$8,140			$18,780	0.417	$7,836
2025		$2,500	$8,140	$8,140			$18,780	0.394	$7,393
2026		$2,500	$8,140	$8,140			$18,780	0.371	$6,974
2027		$2,500	$8,140	$8,140			$18,780	0.350	$6,579
2028		$2,500	$8,140	$8,140			$18,780	0.331	$6,207
2029		$2,500	$8,140	$8,140			$18,780	0.312	$5,856
2030		$2,500	$8,140	$8,140			$18,780	0.294	$5,524
2031		$2,500	$8,140	$8,140			$18,780	0.278	$5,212
2032		$2,500	$8,140	$8,140			$18,780	0.262	$4,917
2033		$2,500	$8,140	$8,140			$18,780	0.247	$4,638
2034		$2,500	$8,140	$8,140			$18,780	0.233	$4,376
2035		$2,500	$8,140	$8,140			$18,780	0.220	$4,128
2036		$2,500	$8,140	$8,140			$18,780	0.207	$3,894
2037		$2,500	$8,140	$8,140			$18,780	0.196	$3,674
2038		$2,500	$8,140	$8,140			$18,780	0.185	$3,466
2039		$2,500	$8,140	$8,140			$18,780	0.174	$3,270
2040		$2,500	$8,140	$8,140			$18,780	0.164	$3,085
2041		$2,500	$8,140	$8,140			$18,780	0.155	$2,910
2042		$2,500	$8,140	$8,140			$18,780	0.146	$2,745
2043		$2,500	$8,140	$8,140			$18,780	0.138	$2,590
2044		$2,500	$8,140	$8,140			$18,780	0.130	$2,443
2045		$2,500	$8,140	$8,140			$18,780	0.123	$2,305
2046		$2,500	$8,140	$8,140			$18,780	0.116	$2,175
2047		$2,500	$8,140	$8,140			$18,780	0.109	$2,052
2048		$2,500	$8,140	$8,140			$18,780	0.103	$1,935
2049		$2,500	$8,140	$8,140			$18,780	0.097	$1,826
2050		$2,500	$8,140	$8,140			$18,780	0.092	$1,722
2051		$2,500	$8,140	$8,140			$18,780	0.087	$1,625
2052		$2,500	$8,140	$8,140			$18,780	0.082	$1,533
2053		$2,500	$8,140	$8,140			$18,780	0.077	$1,446
2054		$2,500	$8,140	$8,140			$18,780	0.073	$1,364
2055		$2,500	$8,140	$8,140			$18,780	0.069	$1,287
2056		$2,500	$8,140	$8,140			$18,780	0.065	$1,214
2057		$2,500	$8,140	$8,140			$18,780	0.061	$1,146
2058		$2,500	$8,140	$8,140			$18,780	0.058	$1,081
2059		$2,500	$8,140	$8,140			$18,780	0.054	$1,020
2060		$2,500	$8,140	$8,140			$18,780	0.051	$962
2061		$2,500	$8,140	$8,140			$18,780	0.048	$907
Project Life								...	
								Total Present Value of Discounted Costs (Sum of Column (i))	$1,488,528
								Transfer to Table 20, column (c), Exhibit F: Proposal Costs and Benefits Summaries	

Comments:

Table 12a - Annual Water Supply Benefits

(All benefits should be in 2009 dollars)

Project Title: City of Stockton - High Efficiency Toilet Direct Installation Phase II – Program Expansion to Residential Customers (HET Residential Program)

(a) Year	(b) Type of Benefit	(c) Measure of Benefit (Units)	(d) Without Project	(e) With Project	(f) Change Resulting from Project (e) – (d)	(g) Unit $ Value (1)	(h) Annual $ Value (f) x (g) (1)	(i) Discount Factor (1)	(j) Discounted Benefits (h) x (i) (1)
2009	Municipal Supply Benefit	Acre-feet	0		0	$732	$0	1.000	$0
2010	Municipal Supply Benefit	Acre-feet	0	13.1	13.1	$732	$9,564	0.943	$9,022
2011	Municipal Supply Benefit	Acre-feet	0	39.2	39.2	$732	$28,694	0.890	$25,538
2012	Municipal Supply Benefit	Acre-feet	0	54.1	54.1	$732	$39,626	0.840	$33,270
2013	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.792	$35,716
2014	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.747	$33,695
2015	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.705	$31,788
2016	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.665	$29,988
2017	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.627	$28,291
2018	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.592	$26,689
2019	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.558	$25,179
2020	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.527	$23,753
2021	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.497	$22,409
2022	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.469	$21,141
2023	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.442	$19,944
2024	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.417	$18,815
2025	Municipal Supply Benefit	Acre-feet	0	48.5	48.5	$732	$35,527	0.394	$13,985
2026	Municipal Supply Benefit	Acre-feet	0	22.4	22.4	$732	$16,397	0.371	$6,089
2027	Municipal Supply Benefit	Acre-feet	0	7.5	7.5	$732	$5,466	0.350	$1,915
…	..								
Project Life								…	
								Total Present Value of Discounted Benefits Based on Unit Value (Sum of the values in Column (j) for all Benefits shown in table)	$407,228

Comments:

Table 12a - Annual Water Supply Benefits

(All benefits should be in 2009 dollars)

Project Title: City of Stockton - High Efficiency Toilet Direct Installation Phase II – Program Expansion to Residential Customers (HET Residential Program)

(a) Year	(b) Type of Benefit	(c) Measure of Benefit (Units)	(d) Without Project	(e) With Project	(f) Change Resulting from Project (e) – (d)	(g) Unit $ Value (1)	(h) Annual $ Value (f) x (g) (1)	(i) Discount Factor (1)	(j) Discounted Benefits (h) x (i) (1)
2009	Municipal Supply Benefit	Acre-feet	0		0	$732	$0	1.000	$0
2010	Municipal Supply Benefit	Acre-feet	0	13.1	13.1	$732	$9,564	0.943	$9,022
2011	Municipal Supply Benefit	Acre-feet	0	39.2	39.2	$732	$28,694	0.890	$25,538
2012	Municipal Supply Benefit	Acre-feet	0	54.1	54.1	$732	$39,626	0.840	$33,270
2013	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.792	$35,716
2014	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.747	$33,695
2015	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.705	$31,788
2016	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.665	$29,988
2017	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.627	$28,291
2018	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.592	$26,689
2019	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.558	$25,179
2020	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.527	$23,753
2021	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.497	$22,409
2022	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.469	$21,141
2023	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.442	$19,944
2024	Municipal Supply Benefit	Acre-feet	0	61.6	61.6	$732	$45,091	0.417	$18,815
2025	Municipal Supply Benefit	Acre-feet	0	48.5	48.5	$732	$35,527	0.394	$13,985
2026	Municipal Supply Benefit	Acre-feet	0	22.4	22.4	$732	$16,397	0.371	$6,089
2027	Municipal Supply Benefit	Acre-feet	0	7.5	7.5	$732	$5,466	0.350	$1,915
…	..								
Project Life								…	
								Total Present Value of Discounted Benefits Based on Unit Value (Sum of the values in Column (j) for all Benefits shown in table)	$407,228

Comments:

Table 12b - Annual Water Supply Benefits

(All benefits should be in 2009 dollars)

Project Title: Stockton East Water District 35 Acre Recharge Pond and Conjunctive Use Project

(a) Year	(b) Type of Benefit	(c) Measure of Benefit (Units)	(d) Without Project	(e) With Project	(f) Change Resulting from Project (e) – (d)	(g) Unit $ Value (1)	(h) Annual $ Value (f) x (g) (1)	(i) Discount Factor (1)	(j) Discounted Benefits (h) x (i) (1)
2009	Opportunity Cost - Land Value	Acres	-35	0	35	$3,000	$105,000	1.000	$105,000
2010							$0	0.943	$0
2011							$0	0.890	$0
2012	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.840	$5,663
	Municipal Supply Benefit	Acre-feet	0	358	358	$200	$71,600		$60,117
2013	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.792	$5,343
	Municipal Supply Benefit	Acre-feet	0	358	358	$204	$73,032		$57,848
2014	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.747	$5,040
	Municipal Supply Benefit	Acre-feet	0	358	358	$208	$74,493		$55,665
2015	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.705	$4,755
	Municipal Supply Benefit	Acre-feet	0	358	358	$212	$75,982		$53,565
2016	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.665	$4,486
	Municipal Supply Benefit	Acre-feet	0	358	358	$216	$77,502		$51,543
2017	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.627	$4,232
	Municipal Supply Benefit	Acre-feet	0	358	358	$221	$79,052		$49,598
2018	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.592	$3,992
	Municipal Supply Benefit	Acre-feet	0	358	358	$225	$80,633		$47,727
2019	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.558	$3,766
	Municipal Supply Benefit	Acre-feet	0	358	358	$230	$82,246		$45,926
2020	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.527	$3,553
	Municipal Supply Benefit	Acre-feet	0	358	358	$234	$83,891		$44,193
2021	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.497	$3,352
	Municipal Supply Benefit	Acre-feet	0	358	358	$239	$85,569		$42,525
2022	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.469	$3,162
	Municipal Supply Benefit	Acre-feet	0	358	358	$244	$87,280		$40,920
2023	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.442	$2,983
	Municipal Supply Benefit	Acre-feet	0	358	358	$249	$89,026		$39,376
2024	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.417	$2,815
	Municipal Supply Benefit	Acre-feet	0	358	358	$254	$90,806		$37,890
2025	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.394	$2,655
	Municipal Supply Benefit	Acre-feet	0	358	358	$259	$92,622		$36,460
2026	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.371	$2,505
	Municipal Supply Benefit	Acre-feet	0	358	358	$264	$94,475		$35,085
2027	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.350	$2,363
	Municipal Supply Benefit	Acre-feet	0	358	358	$269	$96,364		$33,761
2028	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.331	$2,229
	Municipal Supply Benefit	Acre-feet	0	358	358	$275	$98,291		$32,487
2029	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.312	$2,103
	Municipal Supply Benefit	Acre-feet	0	358	358	$280	$100,257		$31,261
2030	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.294	$1,984
	Municipal Supply Benefit	Acre-feet	0	358	358	$286	$102,262		$30,081
2031	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.278	$1,872
	Municipal Supply Benefit	Acre-feet	0	358	358	$291	$104,308		$28,946
2032	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.262	$1,766
	Municipal Supply Benefit	Acre-feet	0	358	358	$297	$106,394		$27,854
2033	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.247	$1,666
	Municipal Supply Benefit	Acre-feet	0	358	358	$303	$108,522		$26,803
2034	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.233	$1,572
	Municipal Supply Benefit	Acre-feet	0	358	358	$309	$110,692		$25,791
2035	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.220	$1,483
	Municipal Supply Benefit	Acre-feet	0	358	358	$315	$112,906		$24,818
2036	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.207	$1,399
	Municipal Supply Benefit	Acre-feet	0	358	358	$322	$115,164		$23,881
2037	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.196	$1,320
	Municipal Supply Benefit	Acre-feet	0	358	358	$328	$117,467		$22,980
2038	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.185	$1,245
	Municipal Supply Benefit	Acre-feet	0	358	358	$335	$119,817		$22,113
2039	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.174	$1,174
	Municipal Supply Benefit	Acre-feet	0	358	358	$341	$122,213		$21,279
2040	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.164	$1,108
	Municipal Supply Benefit	Acre-feet	0	358	358	$348	$124,657		$20,476
2041	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.155	$1,045
	Municipal Supply Benefit	Acre-feet	0	358	358	$355	$127,150		$19,703
2042	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.146	$986
	Municipal Supply Benefit	Acre-feet	0	358	358	$362	$129,693		$18,959
2043	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.138	$930
	Municipal Supply Benefit	Acre-feet	0	358	358	$370	$132,287		$18,244
2044	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.130	$878
	Municipal Supply Benefit	Acre-feet	0	358	358	$377	$134,933		$17,556
2045	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.123	$828
	Municipal Supply Benefit	Acre-feet	0	358	358	$384	$137,632		$16,893
2046	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.116	$781
	Municipal Supply Benefit	Acre-feet	0	358	358	$392	$140,384		$16,256
2047	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.109	$737
	Municipal Supply Benefit	Acre-feet	0	358	358	$400	$143,192		$15,642
2048	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.103	$695
	Municipal Supply Benefit	Acre-feet	0	358	358	$408	$146,056		$15,052
2049	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.097	$656
	Municipal Supply Benefit	Acre-feet	0	358	358	$416	$148,977		$14,484
2050	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.092	$619
	Municipal Supply Benefit	Acre-feet	0	358	358	$424	$151,957		$13,937
2051	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.087	$584
	Municipal Supply Benefit	Acre-feet	0	358	358	$433	$154,996		$13,411
2052	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.082	$551
	Municipal Supply Benefit	Acre-feet	0	358	358	$442	$158,096		$12,905
2053	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.077	$519
	Municipal Supply Benefit	Acre-feet	0	358	358	$450	$161,258		$12,418
2054	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.073	$490
	Municipal Supply Benefit	Acre-feet	0	358	358	$459	$164,483		$11,950
2055	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.069	$462
	Municipal Supply Benefit	Acre-feet	0	358	358	$469	$167,772		$11,499
2056	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.065	$436
	Municipal Supply Benefit	Acre-feet	0	358	358	$478	$171,128		$11,065
2057	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.061	$411
	Municipal Supply Benefit	Acre-feet	0	358	358	$488	$174,550		$10,647
2058	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.058	$388
	Municipal Supply Benefit	Acre-feet	0	358	358	$497	$178,041		$10,246
2059	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.054	$366
	Municipal Supply Benefit	Acre-feet	0	358	358	$507	$181,602		$9,859
2060	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.051	$345
	Municipal Supply Benefit	Acre-feet	0	358	358	$517	$185,234		$9,487
2061	Annual Pump Benefit	MWh	0	45	45	$150	$6,745	0.048	$326
	Municipal Supply Benefit	Acre-feet	0	358	358	$528	$188,939		$9,129
Project Life	50-years							…	
							Total Present Value of Discounted Benefits Based on Unit Value (Sum of the values in Column (j) for all Benefits shown in table)		$1,559,929

Comments:

Table 15a. Total Water Supply Benefits (All benefits should be in 2009 dollars)			
Project Title: City of Stockton - High Efficiency Toilet Direct Installation Phase II – Program Expansion to Residential Customers (HET Residential Program)			
Total Discounted Water Supply Benefits (a)	Total Discounted Avoided Project Costs (b)	Other Discounted Water Supply Benefits (c)	Total Present Value of Discounted Benefits (d) (a) + (c) or (b) + (c)
$407,228	N/A	N/A	$407,228
Comments:			

Table 15b. Total Water Supply Benefits (All benefits should be in 2009 dollars)			
Project Title: Stockton East Water District 35 Acre Recharge Pond and Conjunctive Use Project			
Total Discounted Water Supply Benefits (a)	Total Discounted Avoided Project Costs (b)	Other Discounted Water Supply Benefits (c)	Total Present Value of Discounted Benefits (d) (a) + (c) or (b) + (c)
$1,559,929	N/A	N/A	$1,559,929
Comments:			